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Art. I.—ON THE INTRODUCTION OF AIR INTO THE VEINS.

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This subject has recently excited a good deal of interest in France, and has given occasion to various discussions in the Académie Royale de Médecine, of Paris, which were not rendered the less interesting by the presence of our distinguished friend, Professor Warren, of Boston, whose contributions on this point of surgical pathology are full of interest. It will be seen that they are referred to by M. Velpeau.—*Ed.*

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The numerous incidental questions which have been raised on occasion of the discussion concerning the introduction of air into the veins, have made the original point be lost sight of. It was desired to know if air can spontaneously enter the human veins during surgical operations; if science possesses facts tending to establish the reality of this accident; and lastly, whether art has any method calculated to prevent or to remedy it; such were the points first debated. In spite of my efforts to keep the discussion within its proper boundaries, it left them almost at the outset, never more to return within them. As I shall not be able to treat the subject again, I think it will be useful to my colleagues, if I publish in detail my researches on the direct question of the introduction of air into the human veins.

Surgical practice had long afforded examples of almost sudden death taking place during certain operations; but these occurrences had been attributed at one time to hemorrhage; at another to the exhaustion of the patients by excess of pain; at other times to terror, and sometimes to syncope. I know myself that patients have died in a few minutes, while the operator was endeavouring to remove a diseased thyroid gland, or a tumour in the axilla; or, to give another instance, that the accident has taken place during tracheotomy, and that no explanation has been attempted except those which I have just given. Modern surgeons, however, not satisfied by these explanations, and recollecting the experiments of physiologists upon animals, have explained such cases by supposing that air entered the veins. The facts of this kind which I have met with are about forty in number. The question is, whether they can be really compared with those which are furnished by experiments on animals, or whether, in any other manner, they contain the proof of the fact in favour of which they are quoted. I consequently think that it will be useful to review them, and give an abridged analysis of them. I shall take care to point out the work where they are to be found, that the reader may refer to all the details, if he thinks proper.

Case I.—The first instance of the kind which was published in France, occurred in the practice of Bauchêne, at St. Antoine's Hospital, in July,

[1] Gazette Médicale, Fevrier 24, 1838, and Lond. Med. Gaz. March 17, 1838, p. 953.

1818, (Piédagnel. Thèse, No. 250, Paris, 1827.) He was removing a large tumour on the right shoulder of a young man of twenty-three; but little blood had flowed, and the clavicle had been turned outwards, when M. Piédagnel heard a noise like that which is caused by the entrance of the air through a small hole into the chest of a living animal. The patient cried out, "My blood is falling into my heart; I am dead." The same sound was heard a second time, and the young man fainted, and died a quarter of an hour after the operation, which, moreover, had been long. The body was opened eighteen hours after death, and it was found that the external jugular vein had been wounded; *there was no blood in the heart;* its right cavities were flaccid and thin; all the vessels contained a considerable quantity of air-bubbles.

Here the external jugular vein was wounded. There was a hissing noise, followed by syncope, but no mention is made of convulsive movements; and there was air every where, except in the heart. Experiments made on living animals show precisely the reverse; in them the heart contains air more than any other part, and when air enters the veins, animals do not sink in this manner.

Case II.—Before the fact just related had drawn public attention, another occurred at the Hôtel-Dieu. On the 19th of November, 1822, Dupuytren had to extirpate a large tumour from the right supra-clavicular region of a young girl, aged about twenty (Arch. Gén. de Méd. t. v. p. 430). During the dissection of this tumour, and before it was completely separated, a hissing noise was heard, as if air was entering a pneumatic apparatus. The patient, who had lost only a few drops of blood, exclaimed, "I am dead," sank upon her chair, and expired instantly.

The body was opened twenty-four hours after death. The right auricle, which was tense and elastic, was filled with air, but contained no blood; fluid blood, however, was found in the other cavities of the heart. All the vessels in the rest of the body contained a large quantity of air, mixed with a certain proportion of blood.

It cannot be denied that a fact like this has something strange about it; nevertheless, if we compare it with what happens in experiments upon animals, we see immediately that the cases are dissimilar. In fact, there is nothing to show that the internal jugular, or even the external jugular vein, was opened during the operation; which, besides, was not finished. There was air alone in the auricle, and blood alone in the ventricle. But we have seen in animals that there was always a close union of blood and air, in the form of a bright red froth, both in the auricle and the ventricle. In the case just detailed, death occurred suddenly, and without convulsions; but it never occurred in this manner in our experiments. Hence the case leaves much to be desired, even taking it as it is narrated.

Case III.—At the same period it was said that a similar accident had happened to Gräfe, of Berlin; but I cannot find the particulars of this case any where, and believe it to be a mere *on dit;* unless, indeed, the name of Gräfe was confounded with the journal which he edits, and a case by Klein was really meant.

Case IV.—We find, indeed, in Gräfe and Walther's Journal (vol. i. p. 120), that Klein, of Stuttgard, while extirpating the thyroid gland in a deaf and dumb child, lost his patient in less than a minute. But, in 1814, when this occurred, the danger of the introduction of air into the veins had not been thought of; and it was not till long afterwards that this case was referred to, in order to support Dupuytren's.

Case V.—Dupuytren also quoted an instance of the same kind, as occurring in Sir Astley Cooper's practice; but nothing of the kind is to be found in his works, and M. Olivier, of Angers, alone has thought it necessary, on the strength of an *on dit*, to mention the case briefly in the Dictionnaire de Médecine, tom. ii. p. 70.

I think I need not add, that, in so important a question, evidence of this kind is of no value.

Case VI.—In 1826, M. Castara, a surgeon of Luneville,[1] while dissecting out a tumour situated in the sub-spinal fossa of the right shoulder, suddenly heard, at the bottom of the wound, a sound like the gurgling of a narrow-necked bottle which is being emptied (this sound is called, in French, *glougou*). The patient, who was twenty-one years of age, fainted, and died suddenly, without any convulsive movement. Twenty-four hours after death, the right cavities of the heart were found filled with fluid blood, mixed with a great quantity of air-bubbles. The left cavities also contained some. The whole venous system of the right arm (including the fore-arm) was filled in the same way. The only vein which had been opened was a branch of the sub-scapular, and the incision in it was less than a line in diameter.

There are some very remarkable peculiarities in this case; it is the only one of those we have hitherto narrated which can be compared with the results of experiments upon animals, with regard to the state of the blood in the heart. But the patient died suddenly; and this never occurred in direct experiments. So small an opening, and that too in a vein beyond the axillary, does not allow of the entrance of air enough to cause real danger, either in dogs or horses; nor can one understand how the air should be present in the veins of the right fore-arm, when none was found either in the vena cava inferior, or in the left arm. Hence M. Castara's case, though one of the most authentic, leaves some doubts in one's mind.

Case VII.—Two years afterwards, in 1828, Dr. Mott, a celebrated surgeon of New York, who is now in Paris, published an account of the extirpation of a tumour, which extended from the parotid region to the face; (Journal of Surgical and Medical Science, Nov. 1827, p. 127.) During the operation the facial vein was opened; a peculiar sound was heard; the patient uttered a cry of distress, and nearly fainted; but death did not take place. Hence there is nothing to show that the symptoms were caused by air entering the veins, especially as the facial vein does not seem capable, anatomically, of allowing it.

Case VIII.—Delpech, while extirpating the arm for a fungous tumour in a patient of about thirty, heard two snuffing sounds (*ronflemens*) before he had got through the joint. The patient fainted twice and died instantly. There had been but little hemorrhage. The dead body was placed under water, and a considerable quantity of air-bubbles were found in the right cavities of the heart, (Memorial des Hôpitaux du Midi, deuxième année, pp. 231, 634.)

Here, again, we are immediately stopped by a number of serious difficulties. First of all, it is neither the axillary nor the subclavian vein which is in question, but merely the veins of the stump of the humerus: and we have already seen[2] that, at this distance from the thorax, the absorption of air appears to be impossible. Then it is not a snuffing sound which is heard in animals, nor do they sink suddenly; moreover, we do not learn what was the state of the air which filled the right cavities alone of the heart.

M. Clémot, of Rochefort, happening to be at the Hôtel-Dieu, told Dupuytren (who had just been attempting to remove a tumour from the thyroid gland,) the three following cases:—

Case IX.—A woman, from whom he had removed a cancerous breast weighing twelve pounds, died a few hours after the operation; and air was found in the veins running from the wound to the heart, as well as in its right cavities, (Putegnat, Thèse, No. 156, Paris, 1834.)

Case X.—In another instance M. Clémot, while dissecting a tumour out of the axilla, suddenly heard a respiratory sound. It was thought that the chest had been opened; the patient fainted, but soon came to himself again.

Is it not clear that no one can be convinced by facts so vaguely set forth, and which, in addition, have not been published by their author?

[1] Saucerotte, Thèses de Strasbourg, March 1828.

[2] That is to say, in the experiments on animals.—*Translator's note.*

Case XI.—In the third case attributed to M. Clémot, the subclavian artery was tied. A small vein had been opened, and a respiratory sound was heard; but the sound was stopped by putting a finger on the vein, and it was thus allowed to reappear, and made to cease, several times. No bad symptom followed, (Gaz. des Hôpitaux, tom. iv. p. 95; Putegnat, in the thesis above quoted, p. 38.)

Dr. Warren, a distinguished surgeon of Boston, published two cases in the American journals in 1832, and has again related them in an interesting work which he has lately published, (Surgical Observations on Tumours, 1837.) They are to be found also in the Gaz. Méd. for 1833, p. 226, and in the Arch. Gén. de Méd. t. xxxi. p. 419. To me, however, they seem to have been admitted as evidence in the present discussion without sufficient reason.

Case XII.—W. Buril, aged sixty, had a cancerous swelling in the right parotid region and on the face. In laying bare the carotid artery, which he wished to tie, Dr. Warren opened a vein, on which he heard a sound like that of air-bubbles passing through water. The patient said he felt ill, and apoplectic symptoms followed. The temporal artery was opened, and the symptoms began to go off at the end of two hours. The next morning they had entirely disappeared, (On Tumours, &c., p. 298.)

Case XIII.—While dissecting a tumour out of the axilla of a patient named Nancy Barker, Dr. Warren heard an indistinct bubbling or clucking sound; the patient became insensible, and her respiration was apoplectic. In spite of stimulants, the introduction of brandy into the larynx, tracheotomy, and blowing air into the lungs, the patient died in a few hours. Post-mortem examination was not allowed, (*op. cit.* p. 259.)

If I am not mistaken, these cases are not of a kind to satisfy all the demands of the critical. In the first one, we see hardly any of the characteristic symptoms which indicate the entrance of air into the veins of animals; and the patient did not die. In the second, only a small subscapular vein was opened, almost an inch distant from the trunk of the axillary. Moreover, those apoplectic symptoms, lasting several hours in a patient who remained insensible, in whom the temporal artery was opened, who was exposed to the vapours of ammonia, into whose bronchi alcohol was introduced, and on whom laryngotomy was performed, have but little resemblance, as it seems to me, with the results of our experiments. All that one can say is, that the veins opened in these two patients were in a part where the entrance of air is, in truth, possible.

Case XIV.—A case mentioned by M.M. Putegnat and Gueretin, in their theses, and attributed to Mr. Hodge, or Lodge (Gaz. Méd. 1833, p. 27), seems stranger than any which I have hitherto cited. If we were to believe this physician, a patient died suddenly from the entrance of air into his veins, at the very instant that Dupuytren had opened the internal saphena!

This case, however, which nobody knew of at Paris, and which has come back to us from America, where it was communicated to Dr. Warren by the author, is too improbable to deserve discussion.

Case XV.—M. Puydebat (Gaz. Méd., 1833, p. 498), and M. Forget (Transact. Méd. t. x. p. 75), have published the case of a young woman, aged eighteen, who was operated upon by M. Roux, in 1832, for a lymphatic tumour in the parotid region. While removing the tumour a hissing noise was heard; the patient immediately cried out and was violently agitated. A fainting fit followed, but did not last long. The patient went on well for several days, and did not die till the end of a week. Air-bubbles were found in all the vessels!

Although it is true that some of the symptoms which are produced by the entrance of air into the venous system occurred in this instance, still it is impossible to consider the thing as proved, and not rather to believe that it was merely a case of syncope. In the first place, we do not know what vein was opened; and as death did not take place till seven days had elapsed, it is unquestionable that it did not arise from the air which might have reached the heart during the operation.

Case XVI.—In the Gaz. Méd. of 1833, and in the the thesis of M. Putegnat, the following case is to be found, communicated by M. Duplat, M. Goulard, wishing to remove a cancer which extended from the breast to the axilla, injured a vein which he believed to be the axillary, from which, however, but little blood flowed. At the same instant the patient was seized with convulsive movements of the face, and died. The body was not examined.

I would not maintain, certainly, that the death of this woman was not caused by air entering the veins; but I cannot help saying that no proof of this is to be found in M. Duplat's case. When the particulars are so vague, it is impossible that a case can prove any thing.

Case XVII.—I will say the same of a case taken from M. Ulrich, (Journ. des Conn. Méd.-Chir. tom. ii. p. 91, or in the Berlin Med. Gaz.) In extirpating a tumour from the neck, the internal jugular vein was opened. A hissing sound was heard, and death ensued in a minute. The right auricle was distended with air, and contained no blood. There was black and fluid blood, but no air, in the corresponding ventricle.

Now, it is certain that in animals death never ensues in a minute; that the auricle contains both blood and air; that it is the same with the ventricle; and that far from being black, the blood is always of a very bright red.

Case XVIII.—The same remark may be applied, with still more force, to Mr. Barlow's cases. While removing a tumour from the cheek, he divided some varicose veins; a fainting fit occurred, which he attributed to the entrance of air into the veins, though the patient soon came to herself again.

Case XIX.—In the other case, Mr. Barlow was extirpating a tumour from a woman's neck, and, while dissecting the skin, he heard a hissing, and a gurgling; the patient died suddenly, without sighing or convulsions. The body was not examined.

Thus, in one instance, it was in the cheek, and experiments show us that in this part the veins do not absorb air; in the other instance, the vein opened could only be the external jugular at most; death was sudden, and without convulsions; and yet it is never so in animals! Moreover, the absence of cadaveric examination makes the case quite incomplete.

Case XX.—A case published by M. Rigaud (Quelques faits de Pratique Chirur., Paris, 1836) is less known than the preceding ones.

In exposing the subclavian artery to cure an aneurism in the axilla, he was enlarging the external incision, when he opened a vein which he believed to be the external jugular. A peculiar sound, a sort of respiration, was heard three times. Nevertheless, M. Rigaud, who was much alarmed (from recollecting Dupuytren's case), found that no bad symptom supervened. The patient died six weeks afterwards, from causes which had nothing to do with the entrance of air into the veins.

We have evidence here of the existence of the sound, of the exit of air-bubbles from the ends of the divided vein, of a sort of bubbling at the bottom of the wound, and yet no particular symptom appeared affecting the visceral functions! We are, therefore, in some measure forced to conclude either that M. Rigaud was deceived, or that the introduction of a large quantity of air into the veins is not always dangerous.

Case XXI.—In passing to the examination of the case which, next to that of Dupuytren, has most excited public attention, I mean M. Roux's, I meet with a mixture of circumstances amidst which it is difficult to find conviction.

A man of good constitution was admitted into the Hôtel-Dieu for a burn, which affected nearly the whole right side of his head, a great part of the hip and of the thigh of the same side, and which had, so to say, sphacelated the whole of the arm up to a short distance below the shoulder. After having first refused to allow the disarticulation of the arm, he consented to it four days afterwards, namely, on the 30th of April, 1836, and was carried

to the operating-room in the beginning of the period of reaction. M. Roux had hardly cut the posterior flap in the deltoid, when he perceived that the patient was pale, and seemed to be going to faint. The capsule was speedily opened; an assistant compressed the axillary vessels, and the disarticulation was finished by cutting the internal or anterior flap, after Desault's manner. But the patient had given no sign of life, and it was impossible to revive his circulation. Some of the bystanders afterwards said that they *thought* they had heard a sort of noise, a hissing. On examination, gases were found in the vessels and the heart, (Journ. des Conn. Med.-Chirurg., t. iv. p. 108. Revue Méd., 1836, t. ii. p. 417.)

One cannot help remarking, that in this case a crowd of data are wanting, and that it does not fulfil the conditions mentioned in the account of the direct experiments relating to the entrance of air into the veins. It is not very certain that a sound was heard; and the opened veins were at most but scapular branches of the internal jugular. Death was sudden, without premonitory symptoms, and without convulsions. There was no frothy fluid in the heart, and the air spoken of is very imperfectly characterised. Lastly, is it necessary to have recourse to the entrance of blood into the veins in order to explain the death of a patient suffering from so enormous a burn, while undergoing disarticulation of the shoulder?

Case XXII.—While this discussion was going on in the academy, M. Duportail was made to say, that Dupuytren had lost another patient by the introduction of air into the veins, while he was endeavouring to remove a tumour from the axilla, (Gaz. Méd. 1837, p. 757. Lancet. Franç. 1837, p. 422.)

These journals add, that in this same operation the accident has happened six times to M. Roux and other practitioners; but every thing combines to show that these are mere assertions, without proofs, arising from some mistake, or only founded on hearsay.

Case XXIII.—The following extract is found in the Bulletins de l'Académie (t. i. p. 132.) M. Delaporte, while removing a tumour from the neck of a woman, aged sixty, was alarmed by a hissing sound, and the occurrence of syncope. However, this accident had no bad consequences, and the woman recovered perfectly.

In this case we see that the jugular vein may have been wounded, and that the air may have entered it. But allowing this to be established, we must conclude that this accident is far from being always fatal, being the same conclusion which we unquestionably derive from our experiments on living animals. On the other hand, it must be allowed that the case is insufficient for conviction.

Case XXIV.—I must say the same of a case published by M. Malgaigne, (Gaz. Méd. 1836, p. 167.) In removing the jaw, and the ganglia of the neck, he opened the external jugular. The hissing, which has been erroneously called a characteristic sound, was heard; but no bad symptom followed.

Case XXV.—Let us see how far the case communicated by M. Amussat himself is conclusive. He was extirpating a tumour from the breast of a woman, aged forty-seven, when a stroke of the bistoury, carried below the clavicle, in order to separate some scirrhous granulations, was followed by a jerking noise, as it were in a zig-zag direction. The patient said she was dying, and almost fainted. The wounded spot was compressed, and a jerking compression (*compression saccadée*) was also applied to the chest; the fainting was not followed by any bad symptom, and the operation was terminated without any other accident, (Bull. de l'Acad. t. i. p. 894.)

Here the breast was operated on, and the incision was made several inches below the clavicle. Nothing could be opened there but some branches of the mammary veins; a zig-zag noise was heard; the patient said she was dying, and then came to herself again. It seems to me that all this is far from proving that air entered the heart, and that it is difficult to find a less conclusive fact.

Case XXVI.—At the same period a case of the kind occurred to me, which I communicated to the Academy, (Bullet. t. i. p. 896.) While I was removing by its base a tumour of the neck, which extended to the carotid vessels, in a woman of about thirty-six, I opened the internal jugular vein. An evident hissing sound was heard; a kind of bubbling was then perceived at the bottom of the wound; and the patient, like the former one, cried out that she was dying, and fainted away. I made an assistant place his finger on the orifice of the vein, and finished the separation of the tumour with a stroke of the bistoury. I had immediate recourse to the remedies employed for common syncope, and the symptoms soon disappeared. The woman left the hospital a month afterwards, the very day that M. Amussat communicated his case to the Academy.

Undoubtedly this case has some points of resemblance to what is observed in direct experiments upon animals. The sound and bubbling caused by the agitation of a mixture of blood and bubbles at the bottom of the wound, this immediate tendency to fainting, accompanied by anxiety and slight convulsive movements, are altogether something striking and surprising. When I saw all this combined in this patient, I must confess that I was alarmed. Yet, would it be possible for me at present to demonstrate that these symptoms were produced by air entering the veins? Are all the elements of well-founded conviction present in this case? I cannot venture to affirm it.

Case XXVII.—M. Malle has related a case nearly resembling mine, (Presse Méd. p. 463.) The internal jugular vein was opened, while M. Begin was extirpating a tumour from the neck, and a sound was heard like that which is caused by emptying a narrow-necked bottle, (in French, *glougou.*) No particular symptom, however, supervened!

Case XXVIII.—According to M. Gueretin (Thèses, Paris, 1837, n. 194,) it would seem that an accident like Dupuytren's happened to M. Mirault, of Angers.

While dissecting out a tumour on the right side of the neck, M. Mirault, who had undoubtedly wounded the internal jugular vein, heard a hissing noise, followed by a second and third sound of the same kind. Tetanic movements took place; but the patient came to himself at the end of eight minutes, was comfortable afterwards, and had not lost twelve ounces of blood. Three hours afterwards he died suddenly.

I would not deny the possibility of air having entered the heart in this instance, as the operation was performed near the internal jugular vein; but I cannot help remarking, that air does not kill animals after three hours of tranquillity. The want of a post-mortem examination, too, deprives this case of its chief value.

Case XXIX.—In operating upon a woman for cancer of the breast, and while asking her to move the arm away from the body, M. Toulmouche observed that the incision made by M. Duval was immediately followed by a hissing sound, resembling that of a loud respiration, somewhat prolonged. The patient fainted, and the bystanders thought her dead; but she soon came to herself, and ultimately recovered all her senses, (Bullet. de l'Acad. t. ii. p. 146.)

Here a small vein only could have been touched, belonging to the trunk neither of the axillary nor the subclavian; so that it would be difficult to deduce any thing very exact from such a case.

Case XXX.—Another instance is mentioned in M. Putegnat's thesis. He says, that a case had just been told him of a man, who, being struck with apoplexy, was immediately bled from the jugular vein. After this bleeding he died suddenly, and air was found in the right auricle, (Thèse, n. 156, p. 41. Paris, 1834.)

One does not immediately see why this patient is supposed to have died from the introduction of air into the veins, rather than by apoplexy. Moreover, doubtful facts cannot be cleared up by examples of which the particulars are so vaguely given.

Case XXXI.—Here is another case still more extraordinary. A woman, seven months pregnant, was attacked with flooding. M. Maugeis bled her in the arm; but eight ounces of blood had hardly flowed when the patient uttered a plaintive cry and died! Nothing was found upon post-mortem examination.

What can we say of a case like this? "If death was not caused in this instance by the entrance of air into the veins," cries M. Maugeis, "what could have caused it?" Were I in this practitioner's place, my answer would be an easy one; I should content myself with saying, "I know nothing about it."

Case XXXII.—M. Dubourg has just communicated another, which is as little conclusive. M. Roux, who has brought it forward, says so too. Such are the principal facts which I have been able to collect concerning the introduction of air into the human veins. Assuredly, it would be possible to add others, if it were allowed to insert every case of sudden death occurring during a surgical operation without any satisfactory reason. We might thus, for example, explain the almost instantaneous death of a patient on whom tracheotomy was performed at the Hôtel-Dieu, in 1835, by M. Trousseau; as well as of several of the persons who have died while it was attempted to remove a tumour of the thyroid gland; but as no one has spoken of the introduction of air in these cases, it is useless to dwell upon them. Animals themselves are sometimes subjected to operations which have caused the same accidents, and the same opinions, as in man. Veterinary surgeons have long known, for example, that opening the jugular vein of a horse may suddenly kill it, as I have already said.

Case XXXIII.—M. Boulay, junior, long since published, in the Journal de Physiologie Expérimentale, a fact which he has again brought forward in the present discussion, and which M. Putegnat mentions in his thesis (p. 32); a fact, too, which is not without its value. He had bled a horse in the neck, and at the moment when he was raising the vein in order to sew up the incision, he heard a peculiar sound, and the animal was seized with trembling, and soon fell down. The blood, however, by continuing to flow, gradually dissipated these symptoms, and the horse soon recovered itself.

Case XXXIV.—An exactly similar case has been since reported by M. Gérard, (Putegnat, Thèse, &c. p. 32.)

Case XXXV.—I have already said that a similar example was related by Verrier, as long ago as 1806.

Case XXXVI.—M. Leblanc has told me that he knows of six other cases of the same kind.

These are good examples of the first symptoms which follow the introduction of air into the veins of the horse; and it is difficult to avoid seeing in them, also, a part of those which have been pointed out in man. It will be confessed however, that all this is not conclusive, and that facts like these could not be allowed to count in science unless the principal question were removed from the discussion.

Cases XXXVII., XXXVIII., and XXXIX.—Even before the experiments of Nysten, the elder Legallois pointed out, in 1809, symptoms which he attributed to the introduction of air into the veins, and which would be much more surprising even, than all that is asserted in the present day, if we were obliged to accept the interpretation which he gives of them. Thus, Legallois says, that he has three times seen rabbits die suddenly immediately after bringing forth; and this happened because the atmospheric air, penetrating as far as the cornua of the uterus, entered into the venous system and the heart, (Putegnat, Thèse, p. 25.)

I do not know whether Legallois is not the experimenter of whom Nysten says that he has to complain; but, assuredly, the facts which he puts forth will not convince any physiologist who has been present at modern experiments.

Nor do I think that much more reliance will be placed in Legallois the

younger, who refers *en passant* to his father's experiments, (Journ. Hebd. t. iii. pp. 183, 184,) and who maintains that the cases of sudden death in some women, shortly after delivery, probably arise from air having entered the veins of the uterus. This is too much opposed to all that later researches have taught us to be now admitted into science.

(To be concluded in our next.)

Art. II.—EFFICACY OF THE EXTRACT OF OLIVE BARK IN INTERMITTENT FEVERS.

The following article is from an abstract of the Actes de la Société de Médecine, of Dijon, contained in a recent French periodical.[1]

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Dr. Bideau, Physician to the Hospital of Saint-Omer, appears to be the first who advanced that the olive leaves should be considered as one of the best succedanea for cinchona. Some Spanish physicians, and several French *Officiers de Santé*, who were in Spain during the war of 1808 to 1813, used this means successfully, the febrifuge properties of which are traditional in that country; and the experiments made by Drs. Rampon, Brassier, Savarési, Fabre, and others, in Estremadura, during the years 1810 and 1811, were so positive as to determine Dr. Pallas, a physician attached to the army, to analyse the leaves and bark of the olive, which was most frequently administered in powder, in aqueous or vinous solution. Dr. Cuynat, having witnessed its efficacy, made fresh trials of the extract of this vegetable, and reduced it as well as he could to its most active elements; and the results which he obtained, joined to those previously acquired by the army physicians in Spain, appeared to him sufficient to establish, in the most peremptory manner, the febrifuge property of the olive. In proof of those properties, Dr. Cuynat communicated to the Society of Medicine of Dijon fourteen cases, which confirm its efficacy with the chemical analysis made by Dr. Pallas, extracted from a work which he has published on this subject. The following is a summary of Dr. Cuynat's experiments:—

1st. Quotidian; half a dram of olive bark. The paroxysm was arrested. Total of the febrifuge administered, a dram.

2d. Quotidian; half a dram. The paroxysm arrested. Total, one dram.

3d. Quotidian; half a dram. The paroxysm arrested. Total, one dram.

4th Quotidian; half a dram. The paroxysm retarded and weakened for three days. Relapse eight days after, caused by the influence of a storm of rain, arrested by one dram. Total, three drams and a half.

5th. Tertian, accompanied with a phlyctenoid eruption; preliminary antiphlogistics; half a dram. Paroxysm arrested. Error in diet; slight relapse; prompt cure. Total, three drams.

6th. Quotidian, preceded by abdominal pains, in a very irritable subject; antiphlogistics, then half a dram. Next paroxysm milder. Total, two drams.

7th. Bronchitoid tertian. Entered the 18th of September, discharged the 15th of October; twenty-seven days. Total, two drams and a half.

8th. Bronchitoid quotidian. Entered 17th of July, discharged 7th of August: twenty-one days. Total, a dram and a half.

9th. Relapsed tertian. Entered, after the sixth paroxysm, 6th of May, discharged the 19th: thirteen days. One dram.

10th. Quartan. Entered on the 26th of June, after the third paroxysm, discharged on the 12th of July: sixteen days. Total, a dram and a half.

11th. Bronchitoid tertian. Entered the 7th of June, discharged the 1st of July: twenty-three days. Total, two drams.

[1] Revue Médicale, Octobre, 1837.

The administration of this remedy was sometimes preceded by general, seldom by local, bleedings, in cases where the inflammatory state of one of several organs showed itself with violence during the paroxysm. The extract of olive bark was only used after the well-marked failure of other febrifuges, and even sulphate of quinine. "We have seldom," says M. Cuynat, "exceeded one dram of the extract diluted with simple water or a mucilaginous julep, according to circumstances. This dose, given some hours before the paroxysm, has often been sufficient in the first attack to prevent a return. In other cases, and they were extraordinary exceptions, three drams were necessary, and sometimes even more; the quantity most commonly employed, and what was sufficient in eight tenths of the cases, was from a dram and a half to two drams, whatever might be in other respects the violence and type of the fever.

The above experiments were made in Spain in 1824 to 1827, in Catalonia, upon the shores of the Mediterranean. The following were performed in France, and at the garrison at Verdun-sur-Meuse, where intermittent fevers of every type are almost endemic. M. Cuynat resolved to try if the extract of olive bark had the same efficacy in that climate. The results were exactly the same, as proved by three experiments made in March and May, 1829, of which the following is a summary:—

1st. Tertian of three days; half a dram. Slighter paroxysm two hours earlier; cure. Total, two drams.

2d. Tertian of three days; half a dram. Two paroxysms more, but weaker, the second of which was two hours earlier; cure. Total, two drams.

3d. Tertian of three paroxysms; half a dram. Milder paroxysm, three hours later; cure. Total, two drams.

In these three cases the paroxysm occurred at one o'clock in the afternoon, at four and at seven o'clock in the morning. M. Cavari obtained similar results, using still smaller doses.

The pharmaceutical preparations of the olive are of the most simple. The bark, which must always be preferred to the leaves, may be given in powder, in aqueous, vinous, and alcoholic infusion, in decoction, and especially in extract and syrup. Of all these, the most preferable, and the one adopted by M. Cuynat, is the extract, which may be dissolved in an appropriate liquid, such as a mucilaginous julep, or more simply in an equal quantity of an aqueous vehicle, or it may be administered in the form of pill, in the dose of half a dram to a dram to adults, taken twice during the apyrexia.

The syrup is a valuable medicine for children, and M. Cuynat has administered it with advantage to very young subjects, who are of cachectic, weak, anemic, and lymphatic temperaments. It is a revulsive tonic, which will only succeed in the hands of a discriminating practitioner, who is capable of selecting the opportunity for its employment. It is prepared by boiling in eight pints of spring water one pound of the finest dried bark of the olive. It is then strained and evaporated to one half. The liquid being cooled, it is to be decanted so as to separate the resinous matter which is precipitated by refrigeration. The necessary quantity of sugar must then be added, after which it must be clarified and boiled to the consistence of syrup, which is to be kept in well-closed bottles. The dose is an ounce, divided into two or three portions, given to children in the apyrexia of intermittent fevers.

The memoir of M. Cuynat is terminated by extensive details of the analysis to which M. Pallas submitted the leaves of the olive bark, which have been inserted in the *Mémoires de Médecine Militaire.*

Art. III.—ON THE REMOVAL OF CAPSULAR CATARACT THROUGH THE SCLEROTICA.

BY RICHARD MIDDLEMORE, SURGEON TO THE BIRMINGHAM EYE INFIRMARY.[1]

There are certain forms of capsular cataract which are not oftentimes removed by the surgical methods now employed, without considerable difficulty. It is my object, in the present communication, to make some remarks,—1. On the various forms of capsular cataract, and on lamellar lymphatic (false) cataract; 2, On the means usually employed for their removal; and 3, On a new mode of operating, by the introduction of an instrument through the sclerotica.

Pathological states of the Eye to which the Operation about to be proposed is adapted.

1. Primary double capsular cataract is represented by Gibson to be in some instances congenital: but I do not remember to have seen a single instance tending to confirm this opinion. It consists of an opacity of the two layers of the capsule, which are generally tough and thick, sometimes united by an organised medium, but more generally in mere apposition. This form of cataract may or may not have contracted abnormal adhesions to surrounding parts.

2. Another condition of disease, to which the operation I am about to suggest is especially adapted, sometimes succeeds the operation of keratonyxis, performed on the eyes of children suffering from soft lenticular cataract; and this is particularly liable to happen if the operator neglect to lacerate the anterior capsule very freely at the first operation.[2] The condition of disease produced very closely resembles that which is left when congenital cataract has been suffered to remain until adult age; that is, the lens is absorbed, the anterior and posterior layers of the capsule become opaque and thickened, the anterior capsule falls down upon the posterior capsule, and these two layers constitute, in effect, a tough membrane, firmly fixed in its situation by other than its normal extent of connection.[3]

3. A portion of capsule may be left behind, after an operation for extraction, by a careless and defective operator—perhaps, indeed, by an attentive and skilful one; and this, in as far as it may seriously impair or destroy vision, may require removal.

4. After the operation of extraction (the anterior capsule being freely lacerated, and the lens readily removed), the posterior capsule may inflame, its texture may be rendered thick and opaque, and strengthened by intertextural lymphatic deposition (*secondary posterior capsular cataract*), or a layer of lymph may be deposited upon its surface (*lamellar or membraniform lymphatic (false) cataract*). However, secondary capsular cataract, or opacity of the posterior capsule, the anterior capsule and the lens being removed from the axis of vision or absorbed, is now somewhat rare, owing to the comparative disuse of depression and reclination, and to the improved mode of operating for extraction, by which the posterior capsule is either quite uninjured or entirely removed from the axis of vision at the time of the operation.

What forms of Operation are usually employed for the removal of the preceding conditions of disease?

Wenzel[4] advised, that whenever the capsule has become opaque after the

[1] London Medical Gazette, April 7, 1838, p. 56.

[2] See my remarks on this subject in the British Annals of Medicine, No. 19, reprinted in the Continental and British Medical Review, No. 4.

[3] This condition of disease is fully described in one of my clinical lectures on Congenital Cataract, published in the London Medical and Physical Journal, for June, 1833.

[4] Wenzel on Cataract, by Ware. 1791.

displacement or extraction of the lens, it (the opaque capsule) should be removed by a small forceps introduced through an opening made by his extraction knife in the cornea.

I can scarcely tell what was the method advised by Saunders: he appears to have relinquished the matter in despair, for he states that the united capsules resulting from the long continuance of congenital cataract constitute a substance "which the surgeon will in vain endeavour either to extract or depress."[1]

The treatment proposed by Gibson was essentially the same as that advised by Wenzel, except that the incision of the cornea was smaller, the opaque matter being punctured with the point of the knife, and removed by a hook instead of a forceps.[2] His directions upon the subject are very minute, and are marked by great precision. Since the appearance of Gibson's little publication, no material improvement in the surgical mode of treating the *primary double capsular cataract*, requiring particular notice, has taken place.

In performing this—which may be called Wenzel's and Gibson's—operation, we find that the part divided is transparent, and anterior to the pupil; we find, also, that several instruments are generally used; that the operation is liable to be greatly protracted; and that a necessity for the frequent introduction of instruments may arise. Sometimes the operation cannot be effectually completed; sometimes serious inflammation occurs, and the patient's vision is destroyed by a condition of disease far more difficult of relief than that the operation giving rise to it was intended to remove. I have seen these inconveniences take place even in the hands of those accustomed to practise ophthalmic surgery. It is the main object of this paper to propose a more simple and perfect method of cure. By this method, the tough opaque membrane is drawn through the opening in the sclerotica by an appropriate instrument—by an instrument which shall admit of easy introduction, which shall not make a large wound, and which shall be so constructed as to grasp and withdraw, through the sclerotic aperture, the opaque membrane. The instrument I have had made consists of a fine spear-sharped needle, inclosed by the points of a forceps, so adapted as to form a continuous and smooth surface when employed in puncturing the sclerotica; but, when duly introduced, the needle is withdrawn, the blades of the forceps (by being in the minutest possible degree retracted) slightly severed, and adapted to some convenient part of the membrane, which is then grasped and withdrawn. I am not, however, satisfied with this instrument, and hope some of the readers of the Medical Gazette, whose ingenuity is not so much *below par* as mine, will be able to perfect the construction of this; or, by having their attention drawn to the subject, devise some more convenient instrument for the purpose. It has occurred to me that a delicate flattened trocar and canula may be constructed: with this the sclerotica may be punctured at a suitable distance from the margin of the cornea; the sharp needle, or flattened trocar, may be withdrawn, and through the canula a fine and properly adapted forceps (made of a material resembling very fine watch-spring) may be passed through the flattened canula within the eye, when, on appearing at the extremity of the canula, it (the forceps, in right of the material of which it is made) will sufficiently expand to seize the tough membrane. By a slight impulsion of the canula, the blades of the spring forceps are closed upon the whole membrane, and the instrument is then withdrawn. It is intended that the needle, or flattened trocar, shall be very small, shall project but very little beyond the extremity of the canula, and shall be so introduced that its point shall pass through the opaque membrane; upon which, on the removal of the needle, it is intended the canula

[1] A Treatise on some Physical Points relating to the Diseases of the Eye, p. 156. London, 1816.

[2] Practical Observations on the Formation of an Artificial Pupil, &c., p. 127. London, 1811.

shall rest. The spring forceps being introduced, may be so manœuvred that one blade shall pass through the aperture made by the needle in front of, and the other behind the opaque membrane. This manœuvre may, I think, be readily enough accomplished without causing the escape of at least any material quantity of the vitreous humour, by a slight elevation of the external extremity of the canula.

Operation performed on the eye of a young rabbit.—I carefully punctured the lens, by passing a fine needle through the cornea, on three separate occasions, at intervals of about a fortnight. At the expiration of four months from the time of the first puncture, there existed, in the place of the convex lens, &c., a white, tough, flat membrane.

Concluding Operation.—Passing the needle and forceps[1] through the sclerotica, about the sixth of an inch, behind the cornea, I gently pressed it forwards until its point just penetrated the opaque membrane, (I then ceased to press it, when, by means of a spring, it retreated behind to the points of the forceps,) then urging the forceps until its *nearly sharp* extremities passed through it, I carefully separated the blades,[2] by a slight retraction of the instrument, and grasping the opaque membrane, brought a sufficient portion of it away to make a very good pupil. There was no difficulty in introducing the forceps, which were very accurately adapted to the neck of the needle with which the sclerotica was punctured; but having done this, and pushed the forceps forward, then it became almost impossible so to separate the blades as that one of them should pass before and the other behind the opaque membrane; when, however, this was accomplished, then, in consequence of the delicacy and sharpness of the points of the forceps, the tough capsule was so pinched and torn that it was removed only partially and irregularly.

In another communication I intend to complete the details of the plan of which I have now done little more than furnish an outline. In the mean time, as the operation at present performed for the relief of the forms of disease under consideration is avowedly susceptible of great improvement, I trust that some of the large number of surgeons who are now devoting a portion of their time and attention to the advancement of ophthalmic surgery, will endeavour to supply the admitted deficiency.

Art. IV.—CASE OF ANTHRACOSIS OR BLACK INFILTRATION OF THE WHOLE LUNGS.

BY THOMAS STRATTON, M. D.[3]

The interesting appearance, of which the following case is an instance, was first described by the late Dr. J. C. Gregory, in 1831, and since that time several cases have been recorded.

On examining the bodies of elderly persons, we find the lungs always of a dark colour. Sometimes this colour is much deeper in various parts of the lung, which then are as black as charcoal; at other times the whole lungs are uniformly of this charcoal colour.

The first appearance is considered healthy; the second receives the name of melanosis; and the third is what has been called the black lung of coal-miners, and may more shortly be defined *anthracosis* (ἀνθρακ, charcoal.)

On September 29th, 1837, I was invited by Dr. Crawford to witness the

[1] This instrument, which has been already described, was constructed from a rough model made from my directions, by an ingenious optician.

[2] The difficulty of doing this was considerable; but this part of the difficulty may, I am satisfied, be wholly overcome by employing a more perfectly and delicately constructed instrument.

[3] Edinburgh Medical and Surgical Journal, April 1, 1838, p. 490.

inspection of the body of a patient to Dr. Leitch. The history of this patient is as follows.

George Harrison had worked in a coal mine for fifty years; at his death, he was aged seventy; for the last four years he has been an inmate of Tynemouth Workhouse; he had not worked in a coal mine for some time previously. For some years before his decease, he has been affected with symptoms of chronic *bronchitis;* the *dyspnœa* was not considerable; his expectoration was small in quantity, and never of a black colour. There was mucous rattle more on the left than the right side of the chest. On percussion, the sound was natural. Latterly he complained much of pain in the right hypochondrium, and had dropsical symptoms in the abdomen and inferior extremities.

Inspection.—Thorax.—On the left side the *pleura pulmonalis* and *pleura costalis* were connected by extensive and firm adhesions. Both lungs uniformly presented a perfectly black appearance externally and when cut into. A portion of them rubbed on the hand left a black stain, which was with some difficulty washed off, a bit put into water gave it the colour of China ink. Throughout both lungs were seen and felt hard masses of black matter from the size of a bean downwards. These masses were more numerous in the central parts of either lung, and also were in greater abundance in the central part of the left than of the right lung. In the left lung were several chalky bodies, encased in this black substance. No black substance was found in the bronchial glands. Nor was black matter seen in any other part of the body which was examined.

The heart was natural.

Abdomen.—A considerable quantity of fluid was found within the cavity of the peritoneum. The liver and spleen were much diminished in size. The kidneys were healthy.

Harrison's lung I compared with that of another subject, formerly a man-of-war's man, aged seventy-two. This lung was very much lighter in its colour than Harrison's, and did not leave a stain when rubbed on the hand.

It is proper to mention that the coal-miners in this district do not use a lamp attached to the forehead as they do in the west of Scotland.

On the left side there was a greater number of black bodies, more pleural adhesion, and more *bronchitis* than on the right side. It is interesting to observe that these three conditions existed together.

If we suppose the matter of the anthracosis to have been inhaled by the man whilst at work in the mine, and that during the five or six years that he discontinued this kind of work, the lungs were endeavouring slowly to relieve themselves of the foreign matter, then the obstacle to free action of the left lung from pleural adhesion, and the smaller quantity of air which could be admitted along the left bronchial tubes thickened by inflammation, and partially obstructed by mucus, will explain how the anthracosis had become less in the right lung, when these states existed in a much less degree.

If the difference in the quantity of anthracotic matter in the two lungs is not to be explained in this way, then, either more inhaled black matter has been originally received by the left lung, or the function of the elimination of carbon has been less imperfectly performed in the right than in the left lung. With respect to black expectoration in cases of anthracosis, I may refer to the instructive paper by Dr. William Thomson, in the London Medico Chirurgical Transactions for 1836, and of which a short account was given in the last number of this journal, (January, 1838, p. 260.)

Dr. Cumin's patient (Ed. Med. and Surg. Journal, vol. xlii. p. 324) appears to have been affected with phthisis pulmonalis, complicated with anthracosis, as phthisis is sometimes with melanosis. Dr. Laurie's and Dr. Buchanan's cases (ib. pp. 328, 329,) prove the existence of anthracosis without the slightest pectoral affection. Dr. Buchanan's case of Lyall seems to have been anthracosis along with peritoneal melanosis.

Melanosis of the lung appears to differ from anthracosis in the following

particulars. Melanosis exists in isolated portions, while anthracosis is general over the lung. Of melanosis, the local effects are dyspnœa, cough, which is often dry, but sometimes attended with mucous expectoration, and mixed with some puriform sputa, while anthracosis may exist without any chest symptoms whatever. Of melanosis, the most constant constitutional symptoms are the gradual diminution of the vital powers, and diminished nutrition followed by hydropic affections, whereas anthracosis often is unexpectedly found to be present when death has occurred from other causes. In melanosis, black deposits are generally found in other parts of the body besides the lungs, whilst anthracosis is met with in these alone; and lastly, the matter of melanosis loses its black colour when treated with chlorine, (Dr. Henry,) whereas the matter of anthracosis retains its colour when so treated, (Professor Christison.)

BIBLIOGRAPHICAL NOTICES.

Dr. Caldwell on Mental Cultivation and on Phrenology.[1]

The first of these pamphlets is well adapted—as it was devised—for fixing the attention of the sons of the West on the new medical institution to which its author is attached, and which, so far as we can judge, bids fair to be entirely successful.

The second pamphlet, or rather volume, consists of a "vindication" of phrenology, directed especially against the remarks of Dr. Sewall, of Washington city,[2] with an appendix in reference to certain observations on the same subject in Reese's New York Humbugs; and Thoughts on the Phrenology of Falsehood and its Kindred Vices, being a valedictory address to the Medical Graduates in Transylvania University, delivered March 15, 1837, which, the author informs us, was regarded by the trustees of Transylvania University as an attempt to delineate the character of Dr. Dudley. The manuscript of these various essays was solicited from Dr. Caldwell by the New York Phrenological Society, (April 4, 1838,) and the volume before us is the result of Dr. Caldwell's compliance.

It need scarcely be said, after the above enumeration of its contents, that it is markedly controversial. The author has long been esteemed the apostle of phrenology in this country, and in the minutes of the New York Society, on the occasion referred to, he is designated as "the accomplished expounder and able defender of phrenological science." Identified as he is, and always has been, with the cause, we are not surprised that he should endeavour to repel every attack that may be made upon it; but we confess we have not seen in the work of Dr. Sewall, any—to us—adequate reason for his frequent recourse to the *argumentum ad hominem*,—an argument not to be employed—if ever admissible—except on extraordinary occasions. The author's own remarks, at the termination of his essay, are indeed well worthy of being borne in mind by him. "Let the Professor," [Sewall] he

[1] A Succinct View of Mental Cultivation on the Destinies of Louisville; an introductory lecture, delivered at the opening of the Louisville Medical Institute, Oct. 31, 1837. By Charles Caldwell, M. D. 8vo, pp. 34. Louisville, 1838.

Phrenology Vindicated, and Anti-Phrenology Unmasked. By Charles Caldwell, M. D. Small 8vo, pp. 156. New York, 1838.

[2] In his Examination of Phrenology, noticed in the first volume of the "Intelligencer," p. 76.

says, "or any other writer, call in question the truth of phrenology, and discuss the subject with the candour, calmness, and courtesy, which should always characterise a scientific controversy, and if I reply to him at all, my language, matter, and manner, shall be marked with a corresponding exemption from passion and reproach; and as far as I can render it so, from every other exceptionable quality. Fact and plainness, courtesy and argument, shall be alone employed. But they shall be employed with whatever of force and efficiency I can bring to the contest." Such are the sentiments that ought always to be entertained on such occasions. How difficult is it for us, in our controversies, to attain that happy desideratum, which Dryden has so well depicted. "How easy is it," he observes, "to call rogue and villain, and that wittily! But how hard to make a man appear a fool, a blockhead, or a knave, without using any of those opprobrious terms! To spare the grossness of the names, and to do the thing yet more severely, is to draw a full face, and to make the nose and cheeks stand out, and yet not to employ any depth of shadowing. This is the mystery of that noble trade, which yet no master can teach to his apprentice; he may give the rules, but the scholar is never the nearer in his practice; neither is it true that this fineness of raillery is offensive. A witty man is tickled while he is hurt, in this manner, and a fool feels it not: the occasion of an offence may possibly be given, but he cannot take it. If it be granted, that, in effect, this way does more mischief —that a man is secretly wounded, and though he be not sensible himself, yet the malicious world will find it out for him; yet there is still a vast difference betwixt the slovenly butchering of a man, and the fineness of a stroke that separates the head from the body, and leaves it standing in its place. A man may be capable, as Jack Ketch's wife said of his servant, of a plain piece of work, a bare hanging; but to make a malefactor die sweetly, was only belonging to her husband."

All these essays exhibit great vigour and independence of thought; but we are quite convinced their controversial spirit will greatly detract from the effect they were intended by their zealous author to induce.

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Transactions of the Medical Society of the state of New York,[1] *and Dr. McNaughton's Address.*[2]

The present part of these transactions is somewhat meagre, and we think advantage would accrue—as we suggested in the case of the Maryland Academy of Science[3]—if the society would wait until they possess more ample materials before they issue the successive parts of their transactions.

Two sheets are occupied by Dr. McNaughton's address; then follow "Observations on Prolapsus Uteri, with reference to the Modus Operandi of Dr. Hull's 'Utero-abdominal Supporter.' By John F. Gray, M. D.,"—who considers the method of Dr. Hull liable to no objection, so far as he is able to judge;—and lastly, for there are but three communications in the "Part," "Statistical Observations on the number of Blind in Pennsylvania and the United States. By Samuel Hazard, Esq., of Philadelphia;"—being

[1] Transactions of the Medical Society of the State of New York, Vol IV. Part I. 8vo, pp. 80. Albany, 1838.

[2] Annual Address before the New York State Medical Society, Feb. 6, 1838. By James McNaughton, M. D., President of the Society. 8vo, pp. 32. Albany, 1838.

[3] Intelligencer, I., 421.

the substance of a communication published some years ago in the Register of Pennsylvania, then edited by Mr. Hazard—and which is well worthy of being placed on record.

The appendix contains an abstract of the proceedings of the Medical Society of the State of New York, at its annual session in February, 1838.

The address of the president—Dr. McNaughton—is almost wholly on the homœopathic system of medicine, which is treated with coolness and judgment. We much doubt, however, the propriety of canvassing so frequently a subject, on which all that is necessary can be said in a few words, and which is supported—like every other system of the kind that has had its day—on public gullibility. The labour is not worth the price; and after, all, the public grant it their support more as a matter of feeling than of judgment. The system will exist for a while here as well as elsewhere; and there will be at least one good result, that it will break in upon the—at one time universal—notion, that almost all diseases—chronic as well as acute—demand indiscriminately the heroic method of management. He who is satisfied with the homœopathic method, cannot certainly be in favour of the bold and the active.

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Dr. Stribling's Report of the Virginia Western Lunatic Hospital.[1]

This report, besides detailing the condition of the institution to which Dr. Stribling is attached, inculcates the importance of well-directed moral treatment, so ably urged—at the present day—by the medical attendants of the different insane establishments of this and other countries.

Of Dr. Stribling's qualifications for the office which he holds, we can speak most favourably; and we hope soon to see from him statistical and other details relative to the insane, which cannot fail to augment our knowledge in reference to the deplorable condition of those unfortunates, and the suitable means of ameliorating it.

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Louisville Medical Journal.[2]

This is a new candidate for professional favour; and emanates from the recently established and energetic institution at Louisville. Its plan resembles that of the quarterly medical journals in general, and its whole appearance is prepossessing. The department of "Original communications" contains seven essays; that of "Reviews," two articles; and of "Analecta" eleven.

Amongst the original communications are, the Introductory Lecture by Dr. Caldwell, and the Discourse Commemorative of Dr. Physick, by the same gentleman.

Tranchina's method of Preserving Bodies indefinitely from Putrefaction.—This secret, for which the inventor received three thousand ducats from the king of Sicily, consists in the following process. Two pounds of the white arsenic of commerce are carefully pulverised with six drams and

[1] The Annual Report of Dr. Francis Stribling, Physician of the Western Lunatic Hospital, &c. &c. 8vo, pp. 19. Staunton, Va., 1838.

[2] The Louisville Journal of Medicine and Surgery. Edited by Lunsford P. Yandell, M. D., Professor of Chemistry in the Louisville Medical Institute; Henry Miller, M. D., Professor of Obstetrics in the same; and Theodore S. Bell, M. D. No. 1, Jan., 1838. pp. 250; and Appendix, pp. 25.

twenty-four grains of cinnabar; the common carotid of one side is laid bare, and three ligatures closely applied. The artery is opened longitudinally for a short distance; a brass tube, provided with a cock, is introduced and tied with the middle ligature. A measured amount of the arsenical powder is introduced into a syringe, this is filled with alcohol or water, and the contents, well shaken, are thrown from above downward into the vessel. The operation is repeated until the injection begins to drop out from the upper part of the vessel; on which the upper ligature is secured. If the vessels of the body are now filled, the lower ligature is tightened, the tube removed, and the wound sewed up. The anus is stopped with cotton or charpie, previously immersed in the arsenical mixture, and if signs of change in the intestines are manifested, an injection of the same is then thrown into the abdomen by means of a trocar.

When water has been employed in preparing the injection, the body remains fresh about two months; when alcohol is substituted it remains in the same condition four months. After this the tissues gradually dry, and, as Tranchina thinks, will remain an indefinite period without decomposition, and without emitting any offensive odour.[1]

Hypertrophy of the Female Breast.—Dr. Hecker, of Bergen,[2] relates a case, occurring in a young woman seventeen years of age. The patient is described as little more than five feet in height, and slender. Catamenia regular. The unnatural enlargement commenced within two years. Each breast presents a diameter of twelve inches, and projects the same distance from the thorax. Their size subjects the girl to no little inconvenience, and interferes with every description of manual labour; but there is no evidence of other disease in the glands, no hardening, and no pain. No cause can be assigned for this anomalous condition; and no impression has been made on it by diet or medicine.

Dr. Oppenheim's Zeitschrift.—In a letter which we have recently received from Dr. Oppenheim, of Hamburg (dated Feb. 27), as well as in the January number of his valuable journal, it is stated that Professor Dieffenbach, of Berlin, will no longer be associated in the editorship of the Zeitschrift. He will still, however, continue to act as a collaborator. We may adopt the language of Dr. Oppenheim, in the favourable notice which he has given of our journal, and state "that we see with satisfaction the worthy editor has availed himself of several of our communications for his journal;" and we can equally promise ourselves the pleasure and profit of extracting numerous interesting topics from his periodical.[3] The numbers for January, February, and March, contain notices of the "American Medical Library and Intelligencer," of the remedy proposed for the prevention of hydrophobia, by our correspondent, A., of Pittsburg; of Dr. Marable's case of Absorption of Bone; of Dr. Mease's observations on the effects of night air in malarious regions; and the editor's observations on putrid animal exhalations, and on exstrophy of the bladder.

Transylvania Medical School.—Prof. Mitchell has been transferred from the chair of chemistry to that of materia medica, in the place of Dr. Short; and Dr. Robert Peter, of Lexington, Professor of Chemistry in Morrison College, has been appointed to the chair of chemistry.

[1] Berlin. Medicin. Zeitung, June 14, 1837.
[2] Ibid, for May 10.
[3] Zeitschrift für die gesammte Medicin. Jan. 1838, s. 139.

Dr. David L. Rogers, of New York.—We observe by the New York newspapers, (Weekly Whig, Saturday, April 28,) that the students who were educated under this gentleman have presented him with a pair of silver pitchers, on retiring from the practice of his profession in the city of New York, "as a memorial of their gratitude for his admirable instructions, of their respect for his character, and their admiration of his eminent abilities as a practitioner of surgery and medicine. To the inscription are appended the names of E. F. Pentz, M. D., J. R. Wood, M. D., Ira Delamater, M. D., W. S. Tompkins, M. D., B. C. Dutcher, M. D., J. O. Proudfit, C. B. Archer, M. D., William Halsey, M. D., P. H. Wildman, M. D., S. Allen, M. D., W. H. Burr, M. D., A. Boardman, and D. D. Graham.

Dr. Mütter.—The pupils of this gentleman have recently presented him with a pair of silver pitchers, "as a token of gratitude for the kindness, ability, and zeal, with which he has discharged his duties as preceptor."

English Physicians in France.—Five English medical practitioners, Drs. Allatt, Scott, Carter, Shuter, and Galbraith, were, on the 21st of February last, put on trial at Boulogne, by the Procureur du Roi, charged with exercising their profession in France without authorisation from the authorities of that country. The case against Dr. Allatt was, at the defendant's request, postponed for eight days. Three French doctors, and two English (Drs. Robertson and Campbell), were examined for the prosecution, to prove having met the defendants in various consultations; and three French chemists testified that they had made up medicines from the prescriptions of the defendants, who were afterwards questioned by the court as to their age, place of birth, titles, and qualifications, and length of practice in France. Monsieur Hedouin is said to have ably defended the parties, and the court postponed passing judgment until after the trial of Dr. Allatt. The proceedings are viewed with great interest in Boulogne, and a sympathetic public meeting on the subject was held on the 22d ult.[1]

Since the above paragraph was written, journals have arrived, which state that the decision was given against the English practitioners.—*Lancet, March* 31, p. 32.

On Division of Stricture of the Rectum, high up in the Gut. By R. A. Stafford, Surgeon to the St. Marylebone Infirmary.[2]

In a paper read before the Royal Medical and Chirurgical Society of London, on the 27th of February, 1838, the author describes two cases in which he has performed this operation, the first in 1831, the latter in the last year. In the former case the stricture existed at about two inches and a half from the anus, and was of nine years' standing when the patient was admitted into the St. Marylebone Infirmary. The contracted part was indurated, and would only admit a No. 12 urethra bougie. The author divided the contraction towards the sacrum with an instrument which was shown to the society, and was enabled to pass the middle finger through the stricture immediately afterwards. The operation caused very little pain, and only a few drops of blood were lost. The case went on favourably for more than three weeks, after which the patient was seized with erysipelas of the face, of which she died. Dissection proved to the author that disease of long standing, which had existed in the whole course of the intestinal tube, had been, in a great measure, relieved by the operation; and he expresses a conviction that had it not been for the occurrence of the

[1] Lancet, March 3, 1838, p. 840.
[2] Lancet, for Mar. 10, 1838, p. 866, and Lond. Med. Gaz. for Mar. 10, 1838, p. 941.

erysipelas the patient would have been entirely cured. In the other case the author divided two strictures by the same instrument, the first so contracted as only to admit a bougie of No. 10 size. Slight hemorrhage followed the division of the second obstruction, and in two hours afterwards the bowels began to discharge fæces of a very offensive character, which continued to come away in large quantities for two or three days. In this case diarrhœa continued for some time, but the patient was ultimately discharged perfectly well, the passage of the rectum being completely open.

Mr. Cesar Hawkins said the plan recommended by Mr. Stafford was by no means a novel one, as it had been constantly practised at St. George's Hospital, for twenty years past, as a remedy when other means failed. He should, however, be inclined to limit the employment of this operation to cases where the stricture formed a narrow band. In some cases it only afforded a temporary relief. He (Mr. H.) had performed it twice on one individual. The mode of proceeding adopted in the hospital was by merely dividing the stricture in one part by Sir Astley Cooper's knife for dividing stricture. After the division the necessity for the passage of bougies was as great as ever, the division only assisting in dilating the canal earlier, and with greater facility. He had divided stricture as high up as three or four inches.

Treatment of Syphilitic Buboes by Setons. By Professor Levicaire, of the Marine Hospital, Lyons.[1]

Dr. L. states that he has employed the seton most successfully. His plan is, as soon as he perceives that the bubo contains matter, to pass a strong, round, straight, long needle, carrying a thick thread, in the direction of the fold of the groin. The points of entrance and exit are those at which the gland first begins to soften. He permits the seton to remain for only twenty-four or twenty-eight hours in quiet, and sometimes to promote irritation, and prevent the too rapid healing of the openings, moistens it with a weak caustic solution, and for the first days lays on an emollient poultice. When this is no longer necessary, he dresses it with a handful of cotton (unwrought) in order to promote the exit of the matter, the adhesive inflammation, and the development of granulations. This is supported by a bandage round the loins, and exercises a very gentle steady pressure. Dr. L. thinks every thing disadvantageous which promotes the absorption of the matter. The matter here escapes along the seton; the walls of the abscess come gradually together; the air cannot penetrate through the opening, which is small, and filled by the seton, and the seton causes a healthy action, by means of which granulations are favoured. No cicatrix remains behind, and only three or four days are sometimes necessary for the healing of the bubo.

BOOKS RECEIVED.

From the Author.—Phrenology Vindicated and Anti-Phrenology Unmasked. By Charles Caldwell. 8vo, pp. 156. New York, 1838.

A Succinct View on the Influence of Mental Cultivation on the Destinies of Louisville; an introductory lecture, delivered at the opening of the Louisville Medical Institute, Oct. 31, 1837. By Charles Caldwell, M. D. 8vo, pp. 34. Louisville, 1838.

From Dr. Oppenheim, one of the Editors.—Zeitschrift für die gesammte Medicin, mit besonderer Rücksicht and Hospitalpraxis und auslandische Literatur. Herausgegeben von J. C. G. Fricke und F. W. Oppenheim. Band vii. Heft. 1, 2, and 3, (Januar, Februar, und Marz.) Hamburg, 1838.

[1] Bulletin Gen. de Ther. April, 1837, and Dublin Journal.